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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/630,832

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Naoya Hashimoto

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EXAMINER

DAVENPORT, MON CHERI S

ART UNIT

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2609

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/630,832

Applicant(s)

HASHIMOTO ET AL.

Examiner

Mon Cheri S. Davenport

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/31/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

This Action is in response to the Application filed July 31, 2003.

Information Disclosure Statement

The references listed in the Information Disclosure Statement file on July 31, 2003 have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B forms).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-16 and 19** rejected under 35 U.S.C. 102(b) as being anticipated by Ebina et al. (US Patent Application Publication 2001/0003525).

Regarding **Claim 1** Ebina et al. discloses a communication control device comprising:

an internal communication path connecting a plurality of processor interfaces to each other (*see figure 1, see paragraph [0017], lines 1-5, figure 1 shows an ATM ring network system, connected into a ring shape*);

a plurality of processors, one or a plurality of which is connected to each of said processor interfaces(*see figure 1, section 1-1, to 1-n, plurality of nodes, see paragraph [0017] lines 3-5, the ATM ring network system has a plurality of nodes connected in a ring shape*);

a cell distributor provided within said processor interface and connected to one of said processors for transferring a communication cell received from said internal communication path to the connected processor when the destination of the communication cell is said connected processor (*see figure 2, section 1, ATM switch, see paragraph [0020] lines 3-9, ATM switch for terminating a cell input from the upstream transmission line and transferring*); and

Art Unit: 2609

a selector provided within said processor interface and connected to one of said processors for outputting a communication cell received from the connected processor onto said internal communication path only when said selector possesses transmission rights (*see figure 2, section 14, line control MPU, see paragraph [0020], lines 10-12, line control MPU for receiving control data output from the user cell receiving section and outputting response data to the user cell transmitting section*).

Regarding **Claim 2** Ebina et al. discloses everything as applied above (*see claim 1*). In addition the communication control device includes:

wherein said internal communication path connects said cell distributors and said selectors in a ring(*see figure 1, see paragraph, [0017] lines 3-5, the ATM ring network system has plurality of nodes connected in a ring shape*).

Regarding **Claim 3** Ebina et al. discloses everything as applied above (*see claim 2*). In addition the communication control device includes:

comprising a token cell generator (*see figure 2, section 14, MPU*) for generating a token cell used to grant said transmission rights to one of said selectors, and outputting said token cell onto said internal communication path(*see paragraph [0023], the user cell transmitting section writes the control data from the MPU to the broadcasting control data portion to assemble the cell and outputs the assembled cell to the downstream transmission line through the ATM switch*).

Regarding **Claim 4** Ebina et al. discloses everything as applied above (*see claim 3*). In addition the communication control device includes:

wherein said token cell generator is said selector (*see figure 2, section 14, line control MPU*).

Regarding **Claim 5** Ebina et al. discloses everything as applied above (*see claim 3*). In addition the communication control device includes:

wherein said token cell generator is said cell distributor(*see figure 2, section 14, line control MPU, see paragraph [0025] lines 1-4, the MPU executes the control in the devices in accordance with the received control data and outputs the control results to the user cell transmitting section as response data*) .

Regarding **Claim 6** Ebina et al. discloses everything as applied above (*see claim 3*). In addition the communication control device includes:

wherein said selector outputs a communication cell received from a connected processor onto said internal communication path when said token cell is possessed thereby(*see figure 2, section 14, line control MPU, see paragraph [0025], the MPU*

Art Unit: 2609

executes the control in the devices in accordance with the received control data and outputs the control results to the user cell transmitting section as response data. After the cell is transferred to the node as a downstream device through the ATM switch).

Regarding **Claim 7** Ebina et al. discloses everything as applied above (see *claim 3*). In addition the communication control device includes:

wherein said selector outputs said token cell onto said internal communication path after outputting all of the communication cells received from a connected processor (***see paragraph [0026], the processing operation is sequentially repeatedly executed by the nodes until the cell is received from the last node***).

Regarding **Claim 8** Ebina et al. discloses everything as applied above (see *claim 1*). In addition the communication control device includes:

wherein said internal communication path comprises a common bus connected to said cell distributors and said selectors (***see figure 1, see paragraph [0017], lines 1-5, figure 1 shows an ATM ring network system, connected into a ring shape***).

Regarding **Claim 9** Ebina et al. discloses everything as applied above (see *claim 8*). In addition the communication control device includes:

comprising a transmission rights manager for granting said transmission rights to one of said selectors(***see paragraph [0023], the user cell transmitting section writes the control data from the MPU to the broadcasting control data portion to assemble the cell and outputs the assembled cell to the downstream transmission line through the ATM switch***).

Regarding **Claim 10** Ebina et al. discloses everything as applied above (see *claim 9*). In addition the communication control device includes:

wherein, when a request for transmission rights is received from one of said selectors, said transmission rights manager grants transmission rights to said selector after another selector has lost transmission rights (***see paragraph [0026], the processing operation is sequentially repeatedly executed by the nodes until the cell is received from the last node, and see paragraph [0027], the cell from the node(s) through the upstream transmission line is received by the user cell receiving section through the ATM switch and the contents of the flags and response message portions corresponding to the other nodes***).

Regarding **Claim 11** Ebina et al. discloses everything as applied above (see *claim 9*). In addition the communication control device includes:

wherein said transmission rights manager is provided in each of said processor interfaces(*see figure 2, paragraph [0011], is a block diagram of each node in the system*).

Regarding **Claim 12** Ebina et al. discloses everything as applied above (see *claim 11*). In addition the communication control device includes:

wherein, when a request for transmission rights is received from one of said selectors, said transmission rights manager receives information indicating the assignment or loss of said transmission rights from another transmission rights manager(*see paragraph [0026], the processing operation is sequentially repeatedly executed by the nodes until the cell is received from the last node, and see paragraph [0027], the cell from the node(s) through the upstream transmission line is received by the user cell receiving section through the ATM switch and the contents of the flags and response message portions corresponding to the other nodes*).

Regarding **Claim 13** Ebina et al. discloses everything as applied above (see *claim 1*). In addition the communication control device includes:

wherein said processor interface comprises a buffer unit (**MPU**) for temporarily storing communication cells transferred to a connected processor from said cell distributor(*see figure 2, section 14, line control MPU, see paragraph [0023], the user cell transmitting section writes the control data from the MPU to the broadcasting control data portion to assemble the cell and outputs the assembled cell to the downstream transmission line through the ATM switch*).

Regarding **Claim 14** Ebina et al. discloses everything as applied above (see *claim 13*). In addition the communication control device includes:

wherein said buffer unit comprises (*see paragraph [0023]*):

a buffer for temporarily storing communication cells (*see figure 2, section 14, MPU*);

a cell writer for writing communication cells received from said cell distributor to said buffer(*see figure 2, section 12, user cell receiving section*); and

a cell reader for reading the communication cells stored in said buffer and transmitting the communication cells to said processor (*see figure 2, section 13, user cell transmitting section*).

Regarding **Claim 15** Ebina et al. discloses everything as applied above (see *claim 1*). In addition the communication control device includes:

Art Unit: 2609

wherein said processor interface comprises a buffer unit for temporarily storing communication cells transmitted from said processor to said selector(**see figure 2, section 14, MPU, paragraph [0023], user cell transmitting section writes the control data from the MPU).**

Regarding **Claim 16** Ebina et al. discloses everything as applied above (see *claim 15*). In addition the communication control device includes:

wherein said buffer unit comprises(**see paragraph [0023]**):

a buffer for temporarily storing communication cells (**see figure 2, section 14, MPU**);

a cell writer for writing communication cells received from said processor to said buffer(**see figure 2, section 12, user cell receiving section**); and

a cell reader for reading the communication cells stored in said buffer and transmitting the communication cells to said cell distributor (**see figure 2, section 13, user cell transmitting section**).

Regarding **Claim 19** Ebina et al. discloses everything as applied above (see *claim 1*). In addition the communication control device includes:

comprising a connection switch for connecting said internal communication path to one or a plurality of externals (**nosed 2-2 to 2-n**) (**see figure 5, section 21, ATM SW, see paragraph[0005], when the ATM cell containing control data is broadcast from the nodes 2-1 for control, the ATM switch in each of the nodes branches a cell. In addition, in each of the nodes to an ATM cell containing response data generated by the user cell transmitting section is sent to the node through the ATM switch**).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2609

4. Claims **17-18, and 20** rejected under 35 U.S.C. 103(a) as being unpatentable over Ebina et al. (US Patent Application Publication 2001/0003525) in view of Ikeda et al. (US Patent Number 5,896,501).

Regarding **Claim 17** Ebina et al. discloses everything as applied above (see *claim 1*). However Ebina et al. fails to specifically disclose that the processor interface comprises a format converter for converting the format of communication cells received from another of said processor interfaces via said internal communication path as claimed.

Ikeda et al. discloses wherein said processor interface comprises a format converter for converting the format of communication cells received from another of said processor interfaces via said internal communication path (***see Ikeda et al., figure 1, address translator, see col 5, lines 15-19, the transfer control section writes or reads data to or from the storage according to a real address translated by the inherent address translator section, or the common address translator section, as a result data is transferred between one processor and another***).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Ebina et al. ATM ring network with an address translator (format converter) because data can be process in each individual processor not just the main processor to shorten data transfer time, see Ebina et al., col. 1-2, lines 61-4)

Regarding **Claim 18** Ebina et al. discloses everything as applied above (see *claim 1*). However Ebina et al. fails to specifically disclose wherein said processor interface comprises a format converter for converting the format of communication cells to be transmitted to another of said processor interfaces via said internal communication path as claimed.

Ikeda et al. discloses processor interface comprises a format converter for converting the format of communication cells to be transmitted to another of said processor interfaces via said internal communication path (***see Ikeda et al., figure 1, address translator, see col 5, lines 15-19, the transfer control section writes or reads data to or from the storage according to a real address translated by the inherent address translator section; or the common address translator section, as a result data is transferred between one processor and another***).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Ebina et al. ATM ring network with an address translator (format converter) because data can be process in each individual

Art Unit: 2609

processor not just the main processor to shorten data transfer time, see Ebina et al., col. 1-2, lines 61-4)

Regarding **Claim 20** Ebina et al. discloses everything as applied above (see *claim 19*). However Ebina et al. fails to specifically disclose the communication control device comprising a format converter for converting the format of communication cells received onto said internal communication path from said externals and the format of communication cells to be transmitted to said externals from said internal communication path as claimed.

Ikeda et al. discloses the communication control device comprising a format converter for converting the format of communication cells received onto said internal communication path from said externals (*see Ikeda et al., figure 1, address translator, see col 5, lines 15-19, the transfer control section writes or reads data to or from the storage according to a real address translated by the inherent address translator section, or the common address translator section, as a result data is transferred between one processor and another*) and the format of communication cells to be transmitted to said externals from said internal communication path (*see figure 3, see col ,2, lines 28-32, a transfer control section write or reads data to or from a storage according to the real address translated by the inherent address translator section or by the common address translator section, thus data is transferred between the one processor and another processor*).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Ebina et al. ATM ring network with an address translator (format converter) to transmit to external nodes because data can be process in each individual processor not just the main processor to shorten data transfer time, see Ebina et al., col. 1-2, lines 61-4).

Citation of Pertinent Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Orsic (US patent Number 4,817,082) see abstract.

Sun et al. (US Patent Number 6,751,213) see abstract.

Art Unit: 2609

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md
April 16, 2007


ELISEO RAMOS-FELICIANO
SUPERVISORY PATENT EXAMINER

4/27/07